

June 30, 2020

New Census Bureau Products Track COVID-19's Effects

Introduction

In May 2020, the U.S. Census Bureau released its first findings from the new Household Pulse and Small Business Pulse Surveys. These experimental products are designed to track the effects of the novel coronavirus disease—first observed in Wuhan, China, in 2019 (COVID-19) and declared a pandemic by the World Health Organization in March 2020. The bureau defines such products as those “using new data sources or methodologies that benefit data users in the absence of other relevant products.” Long before COVID-19 struck, the federal statistical system produced data that could gauge changes in mortality, health status, food supplies, unemployment, and business conditions, among other important variables. Not previously available, however, were the kind of data now provided by the pulse surveys, which are not only detailed but also being disseminated in almost real time to help policymakers respond to the pandemic and plan for recovery.

Household Pulse Survey

The Household Pulse Survey questionnaire is the product of collaboration among some of the major agencies in the federal statistical system, led by the Census Bureau (Department of Commerce), which is conducting the survey and presenting the results. The other collaborators are the Economic Research Service (Department of Agriculture), Bureau of Labor Statistics (BLS, Department of Labor), National Center for Health Statistics (Department of Health and Human Services), National Center for Education Statistics (Department of Education), and Department of Housing and Urban Development, with input from the Office of Management and Budget. The topics covered are individuals’ “employment status, spending patterns, food security, housing, physical and mental health, access to health care, and educational disruption.” Responses are made online and are voluntary.

Level of Geography and Frequency

The Census Bureau is producing statistics from the survey for the 50 states, the District of Columbia (DC), and the 15 most populous metropolitan statistical areas (MSAs).

Data collection began on April 23, 2020, and is to continue for 90 days, with weekly data releases.

Sample Design

The survey draws on a systematic sample of housing units from the Census Bureau’s Master Address File, supplemented by email addresses and mobile telephone numbers from the bureau’s Contact Frame. The initial sample, according to the bureau, was divided into three panels, and each was interviewed up to three times. In successive weeks, the bureau is replacing one panel with

another to avoid overburdening respondents. The sample included four panels in the second and third weeks and is including three subsequently. The bureau stated that this design can offer insights into “how household experiences changed during the pandemic.”

Advantages and Limitations

The Census Bureau has noted that efforts are underway to introduce new questions about COVID-19 into the statistical agencies’ benchmark surveys. Producing these surveys, however, is “a highly deliberative process,” so data on the pandemic might not be released for months or years. The Household Pulse Survey, in contrast, has a short turnaround time. Although response rates may be considerably lower than in the bureau’s traditional surveys, the pulse survey’s benefits include, in the bureau’s words, “implementation efficiency, cost, and timeliness of responses.”

Because, as the bureau has explained, “experimental data may not meet all” of its quality standards, it clearly identifies the pulse survey data, provides technical documentation, includes a “Source and Accuracy Statement” with each release, and invites user feedback about data quality and usefulness. (For an example of a “Source and Accuracy Statement,” see <https://www2.census.gov/programs-surveys/demo/technical-documentation/hhp/Source-and-Accuracy-Statement-May-21-May-26.pdf>.)

Illustrative Findings: May 21 to May 26, 2020

As previously mentioned, Household Pulse Survey results are available weekly. The May 21 to May 26 period, highlighted below at the national level, was one in which children could have been meeting educational requirements from home before the end of the school year, and adults could have been largely responsible for teaching them. Adults, with or without children, could have been facing multiple other challenges, which the survey results indicate.

Time devoted to teaching activities. Adults living with children enrolled in public or private schools reported spending an average of 11.7 hours in the past week (that is, the week before respondents answered the survey) on teaching activities with the children.

Loss of employment income. Adults living with children under age 18 were more likely than adults in childless households (55.3% versus 43.3%) to report loss of employment income since March 13, 2020.

Food. Whereas 22.3% of adults reported that, before March 13, their households had enough food, but not always the types of food wanted, 31.1% of adults reported this

situation for the past seven days. The proportions who responded that, before March 13, the household sometimes or often did not have enough to eat were 6.5% and 2.0% respectively, compared with 7.5% and 2.3%, respectively, over the past week. Of adults living with children, 9.4% reported sometimes not having enough food for their households before March 13; 2.6% reported often not having enough food. These adults acknowledged that they sometimes (10.6%) or often (2.9%) lacked enough food for their households in the past seven days. Unemployed adults living with children reported sometimes (14.8%) or often (4.9%) having insufficient food for their households in the last week.

Mental Health. Over half of adults (55.1%) reported “feeling nervous, anxious, or on edge”; 47.2% reported “having little interest or pleasure in doing things”; and 44.8% acknowledged “feeling down, depressed, or hopeless” for “several days,” “more than half the days,” or “nearly every day” during the past week.

Housing. Of adults living in homes that they owned with mortgages, 7.2% reported not having made the previous month’s mortgage payment, while 14.9% of adults living in rented housing did not pay the past month’s rent. As for confidence that they could make the next month’s payment, 4.7% of owners with mortgages and 13.2% of renters expressed “no confidence”; the respective proportions rose to 7.7% and 18.4% among those not currently employed.

Small Business Pulse Survey

Agencies collaborating on the Small Business Pulse Survey include, among others, the Small Business Administration, Minority Business Development Administration and Bureau of Economic Analysis (both in the Department of Commerce), and BLS.

The survey questionnaire collects information about altered conditions facing small businesses during the pandemic, including “overall impact, change in revenues, temporary closings, change in employees, change in employee hours, supply chain, shift to other goods/services, pickup/carry-out/delivery, cash on hand, missed loan payments, missed other payments, requested assistance, received assistance, [and] outlook” about future operations. Responses, like those for the Household Pulse Survey, are online and voluntary.

Level of Geography and Frequency

The Census Bureau is releasing survey results by state and North American Industry Classification System (NAICS) sector and for the 50 most populous MSAs. Examples of NAICS sectors considered in scope for the survey are construction; manufacturing; mining, quarrying, and oil and gas extraction; transportation and warehousing; utilities; administrative, support, waste management, and remediation services; accommodation and food services; retail trade; wholesale trade; health care and social assistance; real estate, rental, and leasing; management of companies and enterprises; information; finance and insurance; professional, scientific, and technical services; educational services; and arts, entertainment, and recreation.

The first data from the survey became available on May 14, 2020; weekly data releases have continued through June.

Sample Design

The survey’s target population is all nonfarm, single-location businesses with fewer than 500 employees and annual receipts of at least \$1,000 in the 50 states, DC, and Puerto Rico. Businesses eligible to participate in the survey are those that responded to the 2017 Economic Census. The sample had about 940,500 businesses in the first week and has had about 885,000 since then, after email addresses linked to multiple businesses were removed. As the Census Bureau explained, the sample is divided into nine panels to reduce the burden on respondents.

Advantages and Limitations

A key advantage of the survey, as of its household counterpart, is that it provides frequent, detailed information on the topics covered.

The Census Bureau has pointed out that although the sample for the pulse survey is not a probability sample, “weights were applied to ensure that each weekly panel represented the full population.”

The survey’s definition of “small business” may differ from the definition(s) used by other organizations or federal agencies.

Nonresponse bias could affect the survey; businesses closed due to the pandemic might not respond because they have not received the bureau’s request to do so. Also, the survey estimates could be biased if businesses participating in the survey differ systematically from nonparticipants.

Illustrative Findings: May 24 to May 30, 2020

In response to the survey question, “Overall, how has this business been affected by the COVID-19 pandemic?,” a national average of 42.9% of businesses reported a “large negative effect.” More than half (54.0%) reported decreased “revenues/sales/receipts” in the past week (referring to the week before businesses answered the survey); 28.4% reported temporary closings; 13.7% answered that they had fewer paid employees; and 28.8% reported that the paid employees worked fewer hours. Disruptions in the supply chain were noted by 37.0% of businesses. Three-quarters (75.1%) acknowledged requesting assistance from the Paycheck Protection Program (see CRS Report R46284, *COVID-19 Relief Assistance to Small Businesses: Issues and Policy Options*) since March 13, 2020, and 71.0% reported receiving assistance from this source since March 13. Responding to the question “how much time do you think will pass before this business returns to its normal level of operations relative to one year ago?,” 41.2% answered “more than six months,” while 9.6% did not think the business would return to its normal level of operations.

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